	Application No.	Applicant(s)
Notice of Allowability	09/996,126	LOVVIK ET AL.
	Examiner	Art Unit
	Chih-Ching Chow	2191

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to _02/16/06_.

2. ☒ The allowed claim(s) is/are _1-8,10-17 and 19-26_.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of
    Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _5/2/06_ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

Examiner's Amendment and Statement of Reasons for Allowance

1.   This action is responsive to Applicant's amendment after non-final filed
November 18, 2005.

Examiner's Amendment

2.   An examiner's amendment to the record appears below. Should the changes and/or
additions be unacceptable to applicant, an amendment may be filed as provided by 37
CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no
later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview
with Mr. Edward Grundler, Registration Number 47,615, on May 02, 2006 for putting the
claims in condition for allowance. Please see attached facsimile dated on 5/2/06.

Claims 1, 10, and 19-26 are amended by Examiner, the application has been
amended as follows:

Claim 1.   (Currently amended) On lines 7-8, "analyzing the model <u>within a
class dependency analyzer</u> to detect references to the supporting class;"

On lines 17-19, "dependent classes of the supporting classes in a
cache <u>within the class dependency analyzer</u> which stores class dependency
information to facilitate subsequent lookups of dependent classes of the
target class."

Claim 10.   (Currently amended) On lines 9-10, "analyzing the model <u>within a
class dependency analyzer</u> to detect references to the supporting class;"

On lines 19-21, "dependent classes of the supporting classes in a
cache <u>within the class dependency analyzer</u> which stores class dependency
information to facilitate subsequent lookups of dependent classes of the
target class."

Claim 19.   (Currently amended) "An A computer apparatus that determines a

class dependency that identifies a supporting class on which a target class

depends, wherein the target class is defined in an object-oriented

programming language, comprising:

a receiving mechanism that is configured to receive a representation

of the target class at a first platform-independent virtual machine;

a modeling mechanism that is configured to create a model of the

target class from the representation;

a class dependency analyzer;

an analysis mechanism within the class dependency analyzer that is

configured to analyze the model to detect references to the supporting

class;

a supporting mechanism that is configured to determine a class

dependency for the supporting class;

a listing mechanism that is configured to create a list of dependent

classes for the target class and supporting classes;

a sharing mechanism that is configured to share the list of dependent

classes with a second platform-independent virtual machine so that the

second platform-independent virtual machine does not need to create the

list of dependent classes;

a cache within the class dependency analyzer configured to store

class dependency information; and

a saving mechanism configured to save the list of dependent classes of

the target class as well as the list of dependent classes of the supporting

classes in the cache to facilitate subsequent lookups of dependent classes of

the target class."

Claim 20. (Currently amended) On line 1, "The computer apparatus of claim 19, "

Claim 21. (Currently amended) On line 1, "The computer apparatus of claim 19, "

Claim 22. (Currently amended) On line 1, "The computer apparatus of claim 21, "

Claim 23. (Currently amended) On line 1, "The computer apparatus of claim 19, "

Claim 24. (Currently amended) On line 1, "The computer apparatus of claim 20, "

Claim 25. (Currently amended) On line 1, "The computer apparatus of claim 20, "

Claim 26. (Currently amended) On line 1, "The computer apparatus of claim 19, "

-- The End --

Examiner's Statement of Reason(s) for Allowance

3.   Claims 1-8, 10-17, 19-26 are allowed.

4.   The following is an examiner's statement of reasons for allowance:

The prior arts of record: <u>Gerard</u>, teaches a method for A dependency checking apparatus and method allows checking the version of classes in an object-oriented program to assure the proper version is being used for each release of the software. <u>Li</u> teaches a method of for identifying class relationships in an object oriented system. An object oriented program in an object oriented source code language is parsed for the immediate class relationship data. However, none of them teaches an cache within the class dependency analyzer that stores class dependency information specifically (see REMARKS dated 2/14/06, page 9); and none of them, taken alone or in combination, teaches a method for determining a class dependency that identifies a supporting class on which a target class depends, wherein the target class is defined in an object-oriented programming language, comprising: receiving a representation of the target class at a first platform-independent virtual machine; creating a model of the target class from the representation; analyzing the model within a class dependency analyzer to detect references to the supporting class; if a supporting class is detected, determining a class dependency for the supporting class; creating a list of dependent classes for the target class and supporting classes; sharing the list of dependent classes with a second platform-independent virtual machine so that the second platform-independent virtual machine does not need to create the list of dependent classes; and saving the list of dependent classes of the target class as well as the list of dependent classes of the supporting classes in a cache within the class dependency analyzer which stores class dependency information only to facilitate subsequent lookups of dependent classes of the target class; in such a manner as recited in independent claims 1, 10, and 19.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Ching Chow whose telephone number is 571-272-3693. The examiner can normally be reached on 7:00am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chih-Ching Chow
Examiner
Art Unit 2191
May 02, 2006

CC

WEI ZHEN
SUPERVISORY PATENT EXAMINER